

MRI: Angiography Scan (MRA)

How to prepare and what to expect

This handout explains how an MRA scan works, how it is done, how to prepare for it, what to expect, and how to get your results.

What is an MRI scan?

Magnetic resonance imaging (MRI) is a way to take pictures of your internal organs and tissues. It uses radio waves and a strong magnet to provide clear and detailed pictures. Even different types of tissue are easily seen in an MRI image.

What is angiography?

Angiography is a procedure that shows how blood flows in your body. An MRI scan of your blood vessels is called *magnetic resonance angiography (MRA)*.

An MRA can help your doctor find, diagnose, and treat heart disorders, stroke risk, and blood vessel diseases.

MRA takes detailed pictures of your blood vessels. Your doctor may want you to have an injection of a *contrast* called *gadolinium* to make the images even more clear.

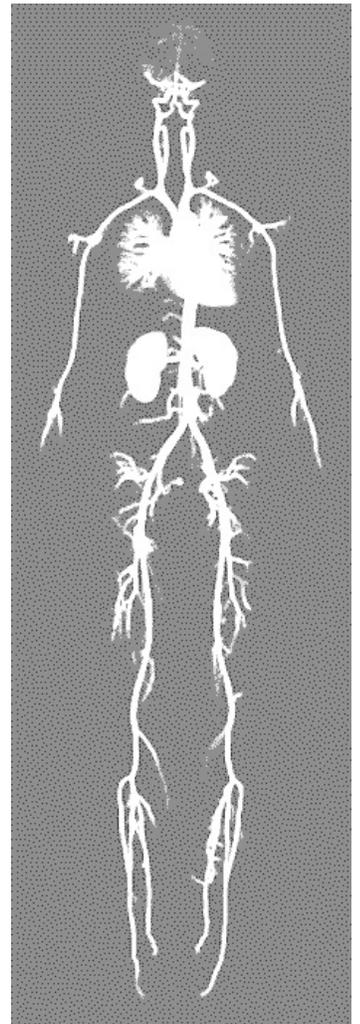
How does the scan work?

Most MRAs involve taking **at least** 2 sets of pictures. Each set will show a different part of your body. It takes 2 to 6 minutes to take each set.

For Your Safety

Health Review

We need to know about certain **health conditions** before we give you an MRA scan. Please tell us if you:



MRA image of blood vessels.

- Have any problems with your liver or kidneys, or need a liver or kidney transplant
- Are on dialysis
- Have allergies to any drugs or contrast
- Have had any surgeries

Screening for Metal

If you have any metal on or in your body, an MRI can harm you.

The strong MRI magnet will pull on any *ferromagnetic* object, such as iron and some other metals.

This is why we need to know if you have any metal in or on your body before we give you an MRI scan. Even small amounts of metal that will not harm your body can ruin the MRI image.

Please tell our staff if you have:

- Aneurysm clips, a heart pacemaker (or artificial heart valve), an implanted port, an infusion catheter (such as Port-o-cath, Lifeport, or Infusaport), an intrauterine device (IUD), any metal plates, clips, pins, screws, or surgical staples, a prosthetic hip, or any implanted metal object in your body
 - Most times, surgical staples, clips, plates, pins, and screws are not a risk during MRA if they have been in place for more than 4 to 6 weeks. If needed, we may do an X-ray to check for metal.
- Tattoos or permanent eyeliner
- Medicine patches
- A bullet or shrapnel in your body
- Ever worked with metal

How do I prepare?

- Please talk with your referring provider if you have any concerns about managing pain or anxiety during your MRI scan.
- *Women:* Tell your provider if you are pregnant or breastfeeding, or if there is any chance you could be pregnant.

On the Day of Your Scan

- **Remove anything that might contain metal.** This includes:
 - Makeup and nail polish
 - Hairpins

- Jewelry
- Glasses, hearing aids, and any removable dental work
- We will ask you to change into a hospital gown. We will give you a gown when you arrive in the MRI department.
- If you have an insulin pump or a patch that delivers any type of drug, we will ask you to remove it.
- *Women:* Before the scan starts, tell the technologist if there is any chance you could be pregnant.

What happens during the scan?

- You will lie on a sliding table. The technologist will help get you into position.
- A device called a *surface coil* will be placed around your body.
- The technologist will slide the table inside the MRA unit and then leave the room to take the pictures. You will be able to talk with the technologist at any time through an intercom.
- We will ask you to hold very still as each picture is taken. We may also ask to hold your breath for some of the pictures.
- The scan usually takes 20 to 60 minutes. It may take longer if the radiologist has asked for extra images.
- Sometimes, an injection of a *contrast* is used to make certain tissues or blood vessels easier to see. If you need the contrast:
 - Your doctor will talk with you about it before your scan.
 - *Women:* Tell your doctor if there is any chance you could be pregnant.
 - We will give you the contrast about halfway through the scan.
 - The contrast will be injected through a small needle using an *intravenous* (IV) line in your arm or hand vein.
- After the scan, we will ask you to wait while we check the pictures for quality. We will take more pictures if needed.
- When your scan is over, we will remove the surface coil.

What will I feel during the scan?

- MRA does not cause pain.
- Some patients may feel confined or uneasy (*claustrophobic*) when they are inside the unit. Please tell the doctor who referred you for

the MRA if you are claustrophobic. We may give you medicine to help you relax.

- You may notice a warm feeling in the area where the pictures are taken. This is normal. If it bothers you, please tell the technologist.
- You will hear loud tapping or knocking noises during the scan. We will provide earplugs and headphones with music to help block some of these sounds.
- If a contrast injection is needed, you may feel discomfort or coolness at the injection site.

Who interprets the results and how do I get them?

A radiologist skilled in MRA will review and interpret your images. The radiologist will not talk with you about the results, but will send a report to your primary care or referring provider. This provider will give you the results.

You and your provider will then decide the next step, such as treatment for a problem, as needed.

You may also read your results on your MyChart page. If you need copies of your images on disc, call 206.598.6206.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC - Montlake Imaging Services: 206.598.6200
- UW Roosevelt Radiology: 206.598.6868
- Harborview Imaging Services: 206.744.3105
- UWMC - Northwest Imaging Services: 206.668.2061